

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 16, with the following rewritten paragraph:

[0002] In recent years, information delivery service for delivering image, voice and data via a network ~~is spread over~~ to receiving terminals having ~~various different~~ connection environments and reproduction performances ~~has become widespread~~. As for the connection environments, wire Ethernet (registered trademark of XEROX Corporation), public switching networks for wire telephone or mobile telephone, wireless connection techniques, cable transmission, and satellite and ground wave digital broadcast can be mentioned. ~~[[As]]~~ Examples of terminals having different reproduction performances, ~~there are include~~ personal computers used in homes, notebook computers, terminals connected to television, mobile information terminals called PDA (personal digital assistance), and mobile telephone terminals. The server delivers an image signal and a voice signal compressed and encoded at a bit rate and with a resolution suitable for the connection environment and reproduction performance to each terminal in a data form suitable for the environment of the terminal.

Please replace the paragraph beginning at page 2, line 13, with the following rewritten paragraph:

[0004] On the other hand, the viewing environment is diversified. As the number of programs increases, the viewing form of the user is also changing. Three concrete examples will now be mentioned. In a first concrete example, the viewer confirms a program group suiting the viewer's taste by conducting information retrieval on the network, and ~~then~~ views the program group. The first concrete example is a form in which the viewer freely views programs restricted so as to suit the viewer's taste. In a second concrete example, contents delivered in a specific channel during a specific time period are stored in a home computer or a home terminal ~~casing in~~ home, and the viewer views the stored contents ~~from the outdoors~~ remotely via a mobile terminal or the like. The second concrete example is a form in which the viewer freely views programs delivered within restrictions to specific time period and area. In a third concrete example, the

viewer views programs intended for education specified by a corporation or school, on the viewer's terminal. The third concrete example is a form in which the viewer freely views programs restricted to a community to which the viewer belongs.

[0005] What are common to these concrete examples are that processing of restricting, in a stage prior to actual program viewing, a candidate program group, i.e., a set of programs which might be reproduced consecutively by the viewer at opportunity of viewing obtained once, is conducted, that the restriction processing and actual program viewing are not always conducted consecutively, and that the viewer desires reproduction of the restricted candidate program group without a delay in an arbitrary connection environment and reproduction environment. Especially as regards the third common point, it is considered that the user's requirement for reproduction without discrimination from data stored in a local medium such as an incorporated hard disk or storage is great. If all programs in the candidate program group are stored in the storage in the terminal, the requirement can be satisfied. Since the capacity of the storage that can be used in the terminal is typically limited, however, it is nearly becomes impossible to implement this mode of operation if the number of candidate program groups increases.

[0006] There is a known method for conducting consecutive reproduction without making the viewer conscious of the reproduction delay by prior delivery of previously-delivering data to be reproduced from the server at the time of delay occurrence (for example, see Patent Document [[1]] JP 2002-344399 A).

Please replace the paragraph beginning at page 4, line 20, with the following rewritten paragraph:

[0009] Furthermore, there is disclosed a method for storing stream data in servers disposed in a hierarchical manner and delivering the stream data to a client via a network, in which head portion data of stream data requested by the client is cached to a server closest to the client and a quantity of head portion data stored in a downstream server is set equal to a data quantity that makes it possible to continue reproduction during at least a time period of transfer from an upstream server (see, for example, Patent Document [[2]] JP 2003-167813 A).

Patent Document 1: JP 2002-344399 A

Patent Document 2: JP 2003-167813 A

Disclosure of the Invention

Problem to be Solved by the Invention

[0010] In the conventional art, however, reproduction changeover from a program to another program or reproduction changeover from a sequence to another sequence in a program is managed by the server. Furthermore, the pre-reading processing is specialized in a single reproduction environment. Whenever delivery service is received in different receiving terminals or whenever the reproduction environment differs, it is necessary for the user to store sequence data in the terminal. A different terminal cannot utilize sequence data stored in a certain terminal. In other words, in the conventional art, the user can reproduce programs consecutively without waiting, only in the case where the program to be changed over to subsequently and the reproduction environment are restricted pre-defined. The user can not implement the way of use, such that, when the user changes over reproduction with respect to the candidate program group in an arbitrary reproduction environment at arbitrary timing, as [[if]] though the user carries the programs freely and can freely access them.

[0011] Therefore, an object of the present invention is to provide an information delivery system, and method, for delivering a program formed of an image, voice or data to a receiving terminal, in a manner whereby wherein suitable delivery without a delay before reproduction in different utilization environments can be always implemented, utilizing its information delivery apparatus, receiving terminal, and information relay apparatus.

Please replace the paragraph beginning at page 10, line 8, with the following rewritten paragraph:

[0020] Furthermore, according to the present invention, delivery service can be implemented without causing the user to feel burden burdened, by conducting a procedure required at the time of program delivery, such as authentication of the user, using management data contained in the head sequence data at the time of reproduction of head sequence data, or conducting program delivery on condition that head sequence data is reproduced.